1929

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Final Xsect. Book No. 3

1930

Members of Party

Bradford Woodward Assistant Engineer Sacramento
Drury Butler " Transitman "
Fred Sprenston " Rodman "
Norbert Mosher " Rodman "
Cliff Yost " Rodman "
Owen Maisel " Rodman "
Earl Henderson Rodman Chamman Clarksburg
Mervyn Fisher Axeman " Folsom
" " Stockton
" " Courtland.

1931

Cross section notes on Sept work Dredger #5 Oct 4 1906

E	Elev	Grade	Left			C	Right		
+50	18.3	24.935	10.3 / 24.5	7.4 / 9	6.6	6.2 / 9	13.2 / 28.5		
623	19.1	24.941	11.2 / 25.8	7.2 / 9	5.8	7.1 / 9	13.2 / 28.8		
+50	19.2	24.947	9.5 / 23.3	6.8 / 9	5.3	5.5 / 9	9.7 / 23.5		
622	18.4	24.953	10.7 / 25.	6.4 / 9	6.5	6.2 / 9	10.6 / 24.9		
+50	18.3	24.959	9.6 / 22.4	5.2 / 9	5.6	4.3 / 9	13.2 / 31.5		
621	21.0	24.965	9.3 / 23.0	4.5 / 9	3.9	3.6 / 9	7.1 / 14.3	10.7 / 25.0	
+50	21.0	24.971	10.5 / 24.8	5.1 / 9	3.9	6.6 / 9	12.0 / 27.0		

BM. 200' Rt E 620+00 Elev 9.400 (Nail in root of Sycamore tree).

620	19.2	24.976	9.2 / 22.5	6.5 / 9	5.0	7.0 / 9	12.8 / 27.5		
+50	20.2	24.982	9.2 / 22.8	5.0 / 9	4.3	6.9 / 9	9.7 / 23.6		
619	21.4	24.988	9.5 / 23.2	5.2 / 9	3.2	5.6 / 9	10.3 / 24.1		

Cross section Notes on Sept work Dredger #5

6

Station	Elev Grade	Left C			Right
+50	18.7 24.825	missing	6.9 / 9	6.9	7.2 / 9	10.3 / 24.5
628	18.0 24.881	11.2 / 25.8	6.1 / 9	6.8	7.2 / 9	11.3 / 26.0

BM Elev 10.932 on Cottonwood tree 170' Rt of 627+75.

+50	18.1 24.882	7.2 / 20.5	6.6 / 9	6.7	8.2 / 9	9.9 / 23.2
627	17.2 24.693	11.5 / 26.3	9.3 / 9	7.7	8.9 / 9	14.5 / 32
+50	17.3 24.839	9.3 / 23.0	5.3 / 9	7.6	9.2 / 9	13.3 / 29.2
626	16.7 24.905	9.3 / 23.0	7.7 / 9	8.2	9.2 / 9	11.9 / 26.2
+50	17.2 24.911	10.5 / 25.2	8.4 / 9	7.9	8.6 / 9	12.1 / 27.2
625	18.6 24.927	12.1 / 27.2	6.3 / 9	6.3	7.5 / 9	11.3 / 26.5
+50	17.2 24.923	9.5 / 22.8	7.9 / 9	7.2	7.8 / 9	10.9 / 25.4
624	18.3 24.929	10.9 / 25.4	7.5 / 9	6.6	6.8 / 9	9.5 / 23.3

1935

E

Elev. Grade Cross section notes on Saltmarsh Dredger # 5

Left C Right

1934

Top figures of fractions are fills. Bottom figures distance from center

+30

629	20 7	24 8/9		9 4/23 1	6 2/9	4 2/9	6 2/9	13 6/29 4

Cross section on #5 Dump Jan 10 1907

		Left		C	Right	
622	24953	8 5 / 21 8	6 0 / 9	4 2	4 8 / 9	10 5 / 24 5
+50	24959	10 0 / 24 0	5 8 / 9	5 1	5 4 / 9	13 2 / 28 8
621	24965	7 8 / 20 7	5 6 / 9	5 5	6 1 / 9	13 3 / 29 0
+50	24971	7 4 / 20 1	6 7 / 9	6 2	6 3 / 9	10 3 / 24 5
620	24976	10 3 / 24 5	8 2 / 9	7 3	8 2 / 9	13 7 / 28 1
+50	24982	10 6 / 24 2	7 4 / 9	7 4	8 1 / 9	15 2 / 31 5
619	24988	11 1 / 25 9	6 4 / 9	6 0	7 2 / 9	10 6 / 24 9

B.M. Elev 9400. 200' Rt E620+00. (Nail in root of Sycamore tree)

1935

Cross section on ℄ 5 Dump Jan 10 1937

		Left		C	Right	
626	24 905	8.7 / 22.1	8.9 / 9	7.6	8.5 / 9	12.0 / 29.2
+50	24 911	10.0 / 24.0	8.4 / 9	7.5	9.6 / 9	12.2 / 28.1
625	24 917	9.4 / 20.2	6.8 / 9	7.0	8.1 / 9	11.4 / 26.1
+50	24 923	9.3 / 23.0	7.7 / 9	7.0	8.1 / 9	11.4 / 26.1
624	24 929	9.9 / 23.9	5.8 / 9	5.4	4.9 / 9	9.6 / 23.4
+50	24 935	10.3 / 24.5	5.1 / 9	5.1	5.3 / 9	10.7 / 26.1
623	24 941	9.2 / 22.5	6.7 / 9	5.2	5.0 / 9	12.1 / 29.2
+50	24 947	7.4 / 20.2	5.6 / 9	5.2	4.1 / 9	10.4 / 24.1

1936

Cross section notes on #5 Quinn Jan 10 1927

10

			Left		C	Right	
630	24 857		4 4 / 15 2	3 4 / 9	1 8	2 6 / 9	7 2 / 19 5
+50	24 862	Hub Mariner of Alfalfa	7 2 / 19 8	3 1 / 9	4 1	5 5 / 9	10 2 / 24 3
+19.5		B.C. 1° 00' Lt.					
629	24 869		7 3 / 20 0	6 5 / 9	3 1	3 3 / 9	8 3 / 21 5
+50	24 875	Brad in cotton wood tree	7 1 / 21 2	6 4 / 9	6 0	6 5 / 9	8 1 / 21 2
628	24 881		10 4 / 24 5	8 2 / 9	7 4	5 3 / 9	8 5 / 22 2

BM Elev 1044.7 On Cottonwood 170' Rt Sta 627+75

+50	24 887		8 2 / 21 3	6 3 / 9	6 1	7 1 / 9	8 4 / 21 6
627	24 893		11 3 / 26 0	8 9 / 9	7 5	8 5 / 9	13 2 / 29 6
+50	24 899		5 5 / 17 2	5 8 / 9	6 5	7 2 / 9	15 3 / 32 2

1937

Cross sections on #5 Dump Jan 10 1907

11

Left & Right

634	24	810	7 1/2 / 19 2/	5 8/9	5 5/9	4 7/9	8 1/2 2 3
750	24	816	8 0/2 1 0	4 3/9	3 6/9	4 5/9	8 8/2 2 2
633	24	822	5 2/16 8	4 2/9	3 8/9	3 4/9	6 11/19 1
750	24	828	7 4/24 1	7 3/9	6 4/9	4 0/9	7 3/23 0
632	24	834	6 1/18 2	4 7/9	3 8/9	4 2/9	7 8/20 6
750	24	840	7 2/19 8	5 8/9	6 2/9	6 0/9	8 5/21 8
631	24	846	7 2/19 8	5 7/9	4 4/9	4 3/9	8 3/21 3
750	24	852	2 4/12 8	2 5/9	1 9/9	3 7/9	6 7/16 3

1938

Cross section on #5 Dump Jan 10 1907

		Left		C	Right	
638	24 262	7 7 / 20 5	2 9 / 9	2 9	2 9 / 9	4 0 / 13 0
+50	24 268	9 4 / 23 1	3 9 / 9	3 5	4 3 / 9	8 6 / 21 2
+079	EL.					
637	24 274	7 3 / 20 0	5 5 / 9	3 5	5 0 / 9	8 1 / 21 2
+50	24 280	3 6 / 14 7	3 5 / 9	3 0	4 2 / 9	5 4 / 17 1
636	24 286	5 7 / 17 6	3 7 / 9	1 9	2 7 / 9	6 2 / 18 3
+50	24 292	7 3 / 20 0	4 6 / 9	4 0	2 9 / 9	6 0 / 18 0
635	24 298	7 3 / 20 2	4 9 / 9	3 7	3 7 / 9	8 5 / 21 2
+50	24 304	7 7 / 20 5	6 1 / 9	5 2	4 9 / 9	4 4 / 15 5

1939

Cross section notes on #5 Dump Jan 15 1907

13

642	24 716	7 1/2 / 19 2	4 2/9	2 2	1 4/9	5 2/16 2
750	24 724	5 4/17 1	2 5/9	1 9	2 4/9	2 11/13 1
641	24 726	3 7/13 8	2 3/9	1 9	1 4/9	1 8/11 7
750	24 732	5 4/16 2	1 5/9	0 5	0 2/9	0 8/10 2
640	24 738	6 7/18 3	2 5/9	2 0	1 4/9	2 1/12 9
750	24 744	7 9/20 7	2 5/9	0 7	2 5/9	3 5/14 3
639	24 750	8 7/21 3	3 5/9	2 4	3 2/9	4 1/16 2
750	24 756	6 1/16 2	2 6/9	1 5	3 6/9	3 7/13 8

0461

Cross section notes on #5 Dam to Jan 17 1911

14

646 Top figures of fractions are cuts
Bottom figures distances from center

	+50	24 673	-1 7/11 6	-1 8/9	-1 5	-6 3/9	-8 8/22 7
	645	24 680	-0 3/9 5	+0 4/9	-00	-2 2/9	-9 2/22 6
	+50	24 686	-0 3/9 5	-0 7/9	-1 2	-4 1/9	-6 0/18 4
	644	24 692	-0 4/9 6	-0 8/9	-1 7	-3 1/9	-6 8/17 7
	+50	24 698	-0 8/10 2	-0 7/9	-0 6	-3 2/9	-7 6/20 4
	643	24 704	-0 2/10 4	-0 2/9	+0 6	-1 4/9	-5 8/17 7
	+50	24 710	-7 5/20 3	-3 7/9	-2 3	-1 6/9	-4 5/15 8

1961

Cross section on Borrow pit # 5 Dec 6th 1926

622	24 953	353 / 100	342 / 80	302 / 65	207 / 34	95 / 34	61 / 13	41	3 / 6	107 / 75	137 / 43	172 / 50		
		→ 337 / 120	189 / 125											
750	24 957	319 / 75	297 / 65	217 / 65	179 / 44	141 / 33	71 / 16	50	37 / 10	127 / 26	142 / 41	186 / 50		
		→ 347 / 90	350 / 110	301 / 126	185 / 126									
621	24 965	329 / 73	299 / 68	209 / 67	162 / 116	142 / 39	87 / 26	55 / 8	52	53 / 7	131 / 26	145 / 33	186 / 43	
		→ 343 / 100	337 / 120	185 / 127										
750	24 971	313 / 118	336 / 110	334 / 90	313 / 70	185 / 63	138 / 34	93 / 13	61	62 / 6	127 / 25	157 / 43	186 / 49	
		→ 165 / 127												
620	24 976	180 / 130	343 / 120	332 / 100	312 / 75	177 / 56	152 / 42	96 / 23	71	86 / 13	142 / 44	183 / 49		
750	24 987	175 / 130	263 / 120	313 / 100	312 / 80	287 / 71	182 / 62	182 / 46	128 / 32	76 / 12	71	79 / 80	137 / 33	178 / 30
619	24 988	162 / 132	242 / 122	255 / 118	232 / 90	287 / 70	243 / 60	173 / 57	172 / 39	155 / 30	73 / 12	61	96 / 242	

Cross section notes on Borrow pit of #5 Dec 6th 1916 16

		Left	C	Right
625	24 917	33.7 / 74 — 30.9 / 67 — 20.2 / 59 — 13.2 / 38 — 8.5 / 22 — 7.0 — 8.3 / 14 — 11.4 / 28 — 15.2 / 43		
		34.2 / 90 — 34.3 / 112 — 29.4 / 119 — 18.3 / 125		
650	24 923	33.9 / 90 — 33.7 / 75 — 30.0 / 65 — 30.7 / 55 — 11.9 / 39 — 8.1 / 15 — 7.0 — 7.9 / 8 — 9.5 / 15 — 13.4 / 33 — 18.0 / 45		
		34.8 / 117 — 29.3 / 120 — 18.2 / 127		
674	24 929	33.3 / 75 — 19.8 / 62 — 10.1 / 42 — 13.2 / 34 — 6.2 / 14 — 5.8 — 4.5 / 8 — 9.1 / 18 — 11.3 / 31 — 18.2 / 43		
		34.5 / 100 — 34.7 / 115 — 28.7 / 123 — 18.6 / 128		
650	24 935	34.0 / 80 — 33.3 / 73 — 29.1 / 65 — 22.2 / 38 — 11.4 / 29 — 5.2 / 10 — 5.1 — 5.0 / 12 — 7.5 / 20 — 11.1 / 28 — 14.3 / 37 — 17.9 / 42		
		34.5 / 110 — 32.3 / 120 — 18.2 / 124		
623	24 941	32.9 / 75 — 28.3 / 65 — 21.5 / 57 — 13.9 / 42 — 9.7 / 27 — 6.5 / 10 — 5.9 — 4.5 / 8 — 10.2 / 17 — 15.1 / 38 — 17.7 / 42		
		34.5 / 45 — 35.1 / 110 — 32.1 / 120 — 18.2 / 126		
650	24 947	34.8 / 90 — 33.6 / 75 — 29.7 / 56 — 21.5 / 59 — 14.4 / 40 — 6.2 / 18 — 5.1 — 4.4 / 9 — 9.0 / 152 — 13.0 / 42 — 17.5 / 45		
		33.2 / 115 — 28.3 / 119 — 18.8 / 124		

1943

Cross section notes on Barrow pit Bridge 2 of Dec 1906 17

	Elev. Grade	Left	℄	Right
628	24 881	$\frac{30^{8}}{90}$ $\frac{29^{8}}{60}$ $\frac{19^{7}}{50}$ $\frac{12^{5}}{38}$ $\frac{10^{6}}{29}$ -7^{4} $-\frac{5^{1}}{8}$ $-\frac{13^{0}}{24}$ $-\frac{14^{9}}{41}$ $-\frac{17^{9}}{50}$		
		$\frac{33^{2}}{90}$ $-\frac{31^{2}}{115}$ $-\frac{29^{7}}{120}$ $-\frac{16^{6}}{126}$		
750	24 887	$\frac{37^{5}}{75}$ $\frac{30^{3}}{65}$ $\frac{21^{3}}{38}$ $\frac{14^{4}}{43}$ $\frac{8^{2}}{39}$ $\frac{6^{2}}{10}$ -6^{2} $-\frac{6^{9}}{11}$ $-\frac{6^{5}}{15}$ $-\frac{11^{2}}{28}$		
		$\frac{33^{3}}{90}$ $-\frac{32^{3}}{115}$ $-\frac{30^{1}}{120}$ $-\frac{16^{6}}{126}$		
627	24 893	$\frac{33^{5}}{90}$ $\frac{33^{8}}{75}$ $\frac{30^{6}}{65}$ $\frac{19^{2}}{39}$ $\frac{15^{6}}{45}$ $\frac{10^{2}}{27}$ -7^{5} $-\frac{6^{6}}{4}$ $-\frac{10^{2}}{9}$ $-\frac{13^{0}}{29}$ $-\frac{17^{5}}{41}$		
		$\frac{33^{3}}{110}$ $-\frac{29^{4}}{120}$ $-\frac{19^{4}}{126}$		
750	24 899	$\frac{38^{7}}{65}$ $\frac{18^{2}}{32}$ $\frac{14^{2}}{41}$ $\frac{8^{0}}{29}$ $\frac{5^{11}}{19}$ -6^{5} $-\frac{6^{5}}{7}$ $-\frac{13^{4}}{20}$ $-\frac{15^{6}}{35}$ $-\frac{17^{2}}{40}$		
		$\frac{30^{4}}{75}$ $-\frac{32^{5}}{90}$ $-\frac{31^{9}}{115}$ $-\frac{28^{7}}{120}$ $-\frac{19^{3}}{125}$		
626	24 915	$\frac{32^{3}}{90}$ $\frac{30^{4}}{70}$ $\frac{28^{2}}{65}$ $\frac{21^{5}}{60}$ $\frac{14^{9}}{43}$ $\frac{8^{8}}{23}$ -7^{6} $-\frac{7^{9}}{7}$ $-\frac{9^{0}}{15}$ $-\frac{14^{8}}{38}$ $-\frac{18^{3}}{50}$		
		$\frac{33^{5}}{111}$ $-\frac{31^{3}}{120}$ $-\frac{18^{5}}{126}$		
750	24 911	$\frac{33^{3}}{77}$ $\frac{29^{3}}{65}$ $\frac{20^{4}}{59}$ $\frac{13^{9}}{38}$ $\frac{9^{0}}{19}$ -7^{2} $-\frac{10^{7}}{13}$ $-\frac{14^{2}}{32}$ $-\frac{18^{1}}{41}$		
		$\frac{33^{5}}{90}$ $-\frac{33^{3}}{118}$ $-\frac{30^{4}}{120}$ $-\frac{18^{3}}{125}$		

4461

Cross sections on Borrow pit Dist Sept # 5 Road 1945

Elev. Grade	Left	C	Right
631 — 24 846	28⁹/₆₁ 20⁴/₅₆ 17²/₆₀ 14⁸/₄₁ 8⁴/₃₁ 5²/₁₃ 4¹/₄		4³/₈ 7⁸/₁₇ 9³/₂₈ 16⁰/₅₀
	31⁷/₇₀ 32²/₉₀ 30⁸/₁₁₅ 28⁷/₁₂₀ 16⁰/₁₂₆		
630 — 24 857	32⁶/₉₀ 30⁸/₇₀ 25⁰/₆₂ 19⁹/₅₅ 10²/₃₇ 2⁶/₁₇ 1⁷		3⁶/₁₀ 8¹/₂₃ 13⁰/₃₆ 16⁴/₅₀
	8 2²/₁₁₀ 30⁷/₁₁₇ 16⁰/₁₂₆		
630 — 24 857	33²/₉₂ 32⁹/₇₀ 29⁵/₆₁ 19⁴/₅₄ 11⁶/₃₈ 4³/₂₁ 1⁶		2⁶/₁₀ 8⁵/₂₉ 16²/₃₈ 17³/₄₈
	32⁶/₁₁₂ 28³/₁₁₆ 15²/₁₂₅		
630 — 24 863	32⁶/₆₈ 30¹/₆₀ 20³/₅₃ 14³/₄₀ 10³/₃₂ 4³/₁₀ 3⁸		6⁵/₁₅ 13⁰/₃₃ 13⁹/₄₄ 17⁹/₅₀
	33³/₉₀ 39²/₁₁₀ 31²/₁₁₈ 15⁻²/₁₂₄		
629 — 24 869	32⁴/₆₅ 30⁵/₅₈ 21³/₅₂ 10²/₃₃ 6⁸/₂₀ 5⁶/₆ 4¹		2⁸/₇ 9³/₂₅ 14³/₃₅ 15⁰/₄₁⁵ 17⁸/₅₀
	37³/₉₀ 32⁷/₁₂₅ 30⁵/₁₁₆ 16³/₁₂₅		
630 — 24 875	33¹/₇₅ 28⁰/₆₀ 20⁵/₅₃ 13⁶/₃₆ 9²/₂₆ 5²/₁₃ 5²		6⁵/₁₃ 9²/₃₂ 16⁶/₄₀ 17⁶/₅₀
	33⁹/₉₀ 32⁹/₁₁₀ 28⁶/₁₂₁ 16⁷/₁₂₈		

1945

Cross sections on Barron pit Dredge #5 — Dec 7 1906

Left & Right

19

9461

634 — 24 8 10

30 7/70	29 8/60	19 7/55	9 2/34	5 2/17	5 3/	4 6/18	9 2/25	10 8/20	16 2/52
31 3/90	30 2/112	28 2/117	15 2/125						

750 — 24 8 16

30 8/90	30 4/65	28 2/60	19 2/36	15 5/40	9 2/33	4 3/12	8 8/	4 3/10	10 7/26	10 6/41	15 8/57
30 5/105	28 8/114	14 0/122									

633 — 24 8 22

29 5/90	30 1/70	28 8/63	20 4/39	10 7/38	6 3/22	3 8/	4 0/13	7 6/29	15 9/60
29 7/111	27 6/115	14 7/123							

750 — 24 8 28

31 4/70	28 6/63	19 2/57	12 5/37	7 4/23	6 3/	3 9/11	9 1/21	12 5/46	16 2/50
30 3/90	30 7/105	29 5/118	14 7/125						

632 — 24 8 34

29 5/75	30 6/65	20 0/38	14 4/46	10 4/34	4 2/15	3 7/	3 6/8	7 6/16	9 9/111	16 8/50
30 0/90	30 3/115	28 5/119	15 1/125							

750 — 24 8 40

30 6/70	29 3/62	19 7/56	14 2/44	10 7/38	5 5/16	6 2/	5 1/16	13 7/36	16 1/50
31 7/90	31 5/112	21 7/119	15 5/125						

Cross Sections on Backup Pt Runs of Hwy 25 Sta 24+20

Left & Right

637	24+74	28 3/60	16 9/52	13 9/35	7 8/26	6 5/16	3 2/	4 3/12	6 8/16	9 2/34	14 8/50		
		32 1/70	33 3/90	33 4/105	30 2/111	16 2/120							
750	24+80	30 5/64	28 2/61	15 7/53	13 4/35	5 4/23	1 6/12	2 8/	6 4/30	9 5/40	16 1/57		
		32 7/90	32 5/105	29 6/115	14 7/126								
636	24+86	29 8/70	28 1/61	15 7/30	13 5/37	7 7/29	3 9/15	1 5/	3 0/8	7 3/22	13 1/44	17 0/55	
		30 7/90	29 3/111	26 1/115	15 1/123								
750	24+92	30 3/65	27 5/60	15 9/57	12 7/34	5 5/14	3 5/	3 1/7	7 4/21	11 5/42	16 3/50		
		30 1/90	30 4/105	27 8/115	14 7/127								
635	24+98	30 4/90	29 2/70	26 2/60	14 2/34	11 4/34	6 7/20	3 1/	3 5/10	10 7/21	13 0/41	11 5/50	
		28 9/110	26 7/118	14 3/125									
50	24+04	30 1/90	30 5/65	28 4/60	20 1/35	9 4/31	5 2/	4 0/14	7 7/22	9 3/36	16 3/50		
		30 7/105	29 3/115	14 2/123									

1961

Cross sections on Borrow pit Dump of Bridge #5.

640 2+14 @ Right

Top figures are distances below grade
150 Bottom figures distances from center

639 24+50

18 2/5 - 13 7/47 - 12 4/34 - 6 2/24 - 3 2/6 - 1 9 - 3 6/13 - 9 7/23 - 11 3/40 - 15 9/50

26 4/67 - 31 3/70 - 33 3/90 - 31 1/110 - 31 3/115 - 30 5/120 - 16 9/122

150 24+56

32 7/90 - 32 5/70 - 30 4/65 - 18 2/57 - 11 3/35 - 15/12 - 1 2 - 2 4/9 - 3 8/23 - 11 5/42 - 16 6/50

33 3/105 - 30 8/113 - 15 5/122

638 24+62

30 8/70 - 28 4/63 - 15 8/50 - 15 4/41 - 12 4/31 - 5 5/23 - 1 11 - 2 2/9 - 8 5/23 - 13 4/36 - 16 5/37

32 4/80 - 32 3/105 - 29 1/110 - 15 8/122

150 24+68

31 3/66 - 29 2/63 - 25 1/50 - 13 7/37 - 7 2/26 - 5 2/15 - 2 8/8 - 2 8/8 - 7 8/12 - 9 6/36 - 12 2/42 - 17 5/50

32 3/90 - 31 0/100 - 28 2/110 - 16 1/117

1948

Cross section notes on Dredgeport Slough Sta 646 - south

April 12 1967 22

	Grade	Left	℄	Right
650	24 $\frac{90}{}$	$\frac{12^{2}}{28^{1}}$ $\frac{9^{2}}{9}$	7^{2}	$\frac{7^{3}}{9}$ $\frac{11^{2}}{25^{1}}$
652	24 $\frac{96}{}$	$\frac{11^{1}}{25^{2}}$ $\frac{8^{2}}{9}$	6^{2}	$\frac{6^{2}}{9}$ $\frac{10^{2}}{25^{2}}$
650	24 $\frac{102}{}$	$\frac{11^{1}}{25^{1}}$ $\frac{7^{3}}{9}$	6^{1}	$\frac{6^{2}}{9}$ $\frac{9^{0}}{23^{3}}$
651	24 $\frac{108}{}$	$\frac{11^{2}}{26^{0}}$ $\frac{8^{1}}{9}$	6^{1}	$\frac{6^{3}}{9}$ $\frac{7^{1}}{22^{2}}$
650	24 $\frac{114}{}$	$\frac{12^{3}}{27^{5}}$ $\frac{7^{2}}{9}$	6^{2}	$\frac{5^{9}}{}$ $\frac{7^{3}}{}$
650	24 $\frac{619}{}$	$\frac{10^{5}}{24^{8}}$ $\frac{5^{6}}{9}$	5^{1}	$\frac{4^{6}}{9}$ $\frac{7^{5}}{20^{3}}$
650	24 $\frac{625}{}$	$\frac{10^{1}}{24^{2}}$ $\frac{4^{3}}{9}$	4^{3}	$\frac{4^{4}}{9}$ $\frac{7^{5}}{20^{3}}$
649	24 $\frac{631}{}$	$\frac{11^{2}}{25^{5}}$ $\frac{5^{2}}{9}$	4^{5}	$\frac{5^{2}}{9}$ $\frac{7^{5}}{21^{2}}$
650	24 $\frac{637}{}$	$\frac{11^{2}}{25^{8}}$ $\frac{5^{4}}{9}$	4^{9}	$\frac{5^{2}}{9}$ $\frac{7^{6}}{20^{2}}$
648	24 $\frac{643}{}$	$\frac{10^{6}}{24^{9}}$ $\frac{3^{9}}{9}$	3^{9}	$\frac{4^{9}}{9}$ $\frac{7^{2}}{20^{5}}$

B.M. 70' Rt 642+15 Elev 18.567 Hub at Lt of Road Crossing

H.I. = 25.109 + Rod = 05 See Dredgeport Level Book Page 34

6461

Cross section notes on Dredged cut Dump Sta 648 South April 12 1917

+50	0	24.96		12/27	9 5/9		7 2/9	10 1/24 2
600		24.52		11 5/26 2	9 0/9	7 6/9	6 8/9	8 4/21 6
+50		24.56		10 8/25 2	7 8/9	5 7/9	5 1/9	8 1/21 2

BM = 19.680 On Point of Rock [illegible]

659+00		24.12						

HI = 27.624 + Rod = 3.1

650		24.57						

From 650+50 to 659 Stakes were set at Grade and 8' from center on each side

655	Grade 0	24.58		5 3/17 3	3 4/9	2 3/9	3 6/9	9 6/23 4
+50		24.51		10 6/24 2	5 1/9	4 2/9	5 4/9	9 6/23 4
654		24.72		14 1/30 2	8 2/9	6 1/9	5 2/9	6 8/19 2
+50		24.58		13 6/29 4	10 2/9	7 2/9	6 4/9	9 4/20 3
653		24.58		13 2/28 9	9 5/9	7 6/9	6 7/9	10 3/24 3

HI = 23.960 − Rod 0.6 See Dredged cut Dump Sta 648 South

1950

Cross section note on Dredger #5 Dump Sta. 648 To Sta 665 April 12 1912

Top figures at front are indicate fills
Bottom figures distances from center

665	24 426			-12 4		
750	24 480	-15 4 / 32 1	-11 5 / 9	-10 5	-10 6 / 9	-13 0 / 28 5
662	24 464	-13 7 / 29 2	-10 8 / 9	-10 3	-9 7 / 9	-12 4 / 27 6
750	24 488	-12 8 / 28 7	-11 4 / 9	-10 3	-9 4 / 9	-10 7 / 24 5
Hi = 19.12	- Rod = 5.3					
661	24 427	-14 6 / 30 9	-10 7 / 9	-9 7	-8 8 / 9	-10 1 / 24 2

1951

Cross section notes and Design Example

676

675

Cross section cont'd
May 9th 1907
See page 45 H2-H3
this book

674

673

672

H1 = 83.67 (21 = original ground)

1952

Re Cross Section and Diagram
See page 41 - 42 May 9th 1907

1953

Cross sections showing effect of water erosion on levee. Part of Vol.
Top figures are elevations

19541

607

HJ 28.3

12.2 / 32 — 14.8 / 36 — 17.7 / 35 — 25.2 / 19 — 18.4 — 16.6 / 9

MS
7.5
67

5 [illegible]
HJ 29.2

12.2 / 40 — 14.7 / 27 — 22.2 / 23 — 18.5 / 9 — 14.2

M.S.
7.8
37

594

12.4 / 55 — 15.2 / 38 — 17.1 / 37 — 20.5 / 27 — 21.2 / 19 — 20.2 / 9 — 13.8

M.S.
7.8
67

HJ = 29.2
BM Elev 7.80 Hub 300 Rt 61+50 on edge of ditch.

April 17 1907 28

Cross-sections for Final estimate on Dump and Borrowpit sta 620 to 623

	Left					℄	Right			
623	83 13⁰ 46 39	16³ 24	19⁴ 20	25⁵ 6	26¹	24² 10	15⁰ 26	9⁹ 43	6⁷ 52	
	22 55	(7⁵ 60)	(-7⁹ 65)	(-10⁵ 85)	(-12² 105)	(-5⁴ 125)				
P.						6⁷ 135	6³ 140	1⁴ 155		
622	0² 65	4³ 30	7² 44	14⁴ 32	15⁸ 25	18² 19	25⁴	35² 7	21⁸ 16	13³ 28	17⁸ 39	12⁰ 46
	(4³ 30)	(12⁵ 100)	(9⁸ 120)	0² 135	5⁴ 140	6⁰ 155					7⁸ 50	
621	(-1⁰ 60)	7² 49	13⁴ 23	15² 29	25⁷ 10	27²	19⁶ 14	13⁷ 22	10⁸ 38	8⁰ 64		
	(-6⁴ 70)	(-11⁸ 90)	(-9⁰ 120)	(-1⁴ 130)	1² 137	6⁶ 140						
P.						6⁴ 155						
620	(-4¹ 20)	0⁵ 60	7² 53	10⁴ 39	13⁴ 24	16⁷ 15	20⁸	24⁰ 11	15² 22	12⁵ 30	9⁶ 40	8⁰ 60
HI 173	(-5² 80)	(-7⁸ 100)	(-4³ 120)	(-1² 130)	6⁸ 135	6⁸ 150						

N.B. With these notes, see also page 49. For previous Stations of Final Cross Section Embankment

620 Final Cross Sections, see Book No 1, page 65. For previous Borrowpit Cross Sections, see Final Cross Section Book No 2, page 12.

B.M. Eler 9.202 Spike in root of Sycamore tree south of 620
HI. 983

1955

FINAL

Cross sections on Dump and Left Borrow pit & Dredge Right of 5

29

627

4 8/55 8 2/48 13 1/37 15 7/44 23 1/10 24 5 22 8/5 15 2/21 11 5/33 7 8/51

(-9 2/60)(-6 0/70)(-10 2/80)(-11 3/95)(-9 6/115)(-3 3/130) 0 7/135 4 3/140

6 3/155 6 2/145

P.

626

HI = 162

2 4/55 8 2/48 12 3/110 15 4/27 17 8/20 20 7/16 25 3 20 2/6 20 2/15 16 5/22 7 1/50

(-0 7/60)(-3 2/70)(-9 2/80)(-10 2/95)(-10 8/110)(-7 5/125)(-1 5/135)

6 5/155 6 5/145 4 1/140

625

HI = 288

8 1/50 11 7/44 15 5/26 20 4/19 24 8/6 24 23 4/6 30 7/11 15 5/12 9 6/37 7 8/48

12/60 (-1 5/65)(-8 6/70)(-10 2/80)(-13 2/100)(-6 3/120) 1 5/135 6 7/140

6 7/155

P.

624

HI = 16'

0 4/60 3 1/55 8 2/47 12 1/38 14 7/25 17 0/22 23 2/10 26 2 25 5/6 15 2/26 13 4/34 6 9/40 7 8/50

(-12 2/70)(-11 1/85)(-13 2/105)(-7 3/125) 1 7/135 6 3/140

6 7/155

HI = 287

1956

FINAL

Cross sections on Airport & Runway Drainage

April 18 1917

Left

Right

631

272

P.

630

283

W.L. 62 5/6/17

629

HJ = 185

P.

628

HJ 222

HJ = 162

1957

FINAL

Cross section notes on Dump and Borrow pit Ladder # 5

31

		Left						Right				
635	281	7.4/46	11.2/40	15.9/30	19.2/20	25.6/10	27.3	24.7/10	19.5/20	16.7/30	14.2/40	10.7/50
		15/55 (-6.3/60) (-8.4/70) (-9.5/80) (-9.5/90) (-10.4/100) (-9.2/110) (-6.2/115) (-7.5/120)										
		9.2/130	9.5/137	6.2/127								
634	273	12.3/40	16.5/30	16.1/25	19.8/20	24.5/10	27.3	26.4/8	25.2/10	21.1/20	18.1/30	14.6/40
P.		7.4/47.5 (-7.2/60) (-9.2/70) (-8.2/80) (-8.2/90) (-8.3/100) (-9.5/110) (-8.1/120)										12.2/50
		9.3/130	9.2/136	6.2/132	0.5/125							
633	285	11.2/40	15.9/30	15.2/25	19.9/20	25.4/10	27.5	21.7/6	26.4/10	21.2/20	17.7/30	14.9/40
		7.4/50	0.2/60 (-5.1/70) (-9.2/80) (-9.6/90) (-8.2/100) (-8.2/110) (-6.3/119)								9.1/35	10.7/50
P.		10.5/155	10.4/140	6.2/127	(-1.5/120)							
632	283	8.2/30	11.5/40	15.7/30	20.6/20	25.2/10	28.3	22.7/10	19.5/20	16.2/30	14.3/40	10.5/50	9.2/58
		(-1.2/60) (-5.2/70) (-8.3/80) (-9.3/90) (-11.2/100) (-10.2/110) (-6.0/120) (-0.3/125)										
		10.7/155	9.2/138	6.2/132								

1958

FINAL

Cross section notes on Dump Road Between C & P & Right April 18 1917 37

639 28+

13/58 9/50 12/40 15/30 19/20 24/10 27 27/7 34/10 16/20 15/30 36/40

(-6/60) (-9/70) (-7/80) (-8/90) (-9/100) (-8/110) (-38/119) 38/135 63/131

9/50

9/130 9/135

P.

638 28+

7/48 10/40 15/30 16/35 20/20 25/10 28 35/10 18/20 14/30 12/40 9/50

13/55 (-6/60) (-9/70) (-9/80) (-9/90) (-10/100) (-10/110) 12/120 63/126

9/150 9/134

637 27+

12/47 11/40 15/30 18/20 28/10 35 35/10 19/20 16/30 14/40 12/50

(-10/55) (-35/60) (-63/70) (-84/80) (-96/90) (-95/100) (-97/110) (-75/120) 11/130

12/60

9/130 9/136 6/134

P.

636 28+

7/50 12/40 15/30 17/24 20/30 25/10 27 27/4 34/10 20/20 15/30 13/40

22/55 (-22/60) (-57/70) (-82/80) (-84/90) (-92/100) (-102/110) (-68/120) (-18/125)

8/66 9/60 11/50

9/155 9/140 6/132

19591

FINAL

Cross Section notes on Dump and Barrow Pit Dredger 75 April 10, 1961

Left C Right

6+43 29+2

9.5/50 13.4/40 16.1/30 17.5/21.5 18.8/25.1 21.7/30 26.4/10 29.2 27.2/10 20.7/20 16.3/30 13.5/40 10.6/50

(-13/60)(-7.2/70)(-5.3/80)(-3.4/90)(-3.7/100)(-10.6/110)(-7.5/120) 1.5/135

9.7/150 9.7/137 6.7/132

P.

6+42 27+2

(-0.1/55) 7.3/47 11.3/40 14.4/30 15.2/26 18.5/20 23.6/10 26.3 29.8/10 21.3/20 17.6/30 15.5/40 12.1/50

(-3.9/60)(-7.4/70)(-9.0/80)(-10.3/90)(-10.3/100)(-8.3/110)(-6.7/120)(-0.7/135)

9.2/150 8.5/138 6.2/133

6+41 29+4

7.5/50 12.9/40 15.2/30 16.1/27.5 21.6/20 27.6/10 38.5 28.4/5 26.7/10 21.5/20 17.2/30 15.3/40 12.3/50

9.2/55 (-10.5/60)(-7.2/70)(-8.0/80)(-10.5/90)(-10.2/100)(-10.3/110)(-8.6/120) 1.0/135

9.1/155 9.2/140 6.2/135 5.2/130

P.

6+40 29+2

12.5/55 7.4/30 12.1/40 16.2/30 16.5/24 20.8/20 26.7/10 31.2 29.7/2 25.8/10 21.4/20 17.7/30 14.2/40 10.7/50

(-9.1/60)(-7.2/70)(-9.4/80)(-10.5/90)(-11.2/100)(-11.2/110)(-7.5/120) 3.2/135

9.2/130 9.1/137 6.2/132

0961

Cross section notes on Dump and Borrow pit Dredge [illegible] April 19 1907

Elev Circle — Left — Right

6+47 — 24 — 24 1/2

(-19/60) 8 5/8 50 — 13 7/8 40 — 15 1/2 27 — 19 2/3 24 — 25 1/2 10 — 25 1/2 — 26 7/8 6 — 18 1/2 20 — 13 1/2 40 — 9 1/2 17 — 8 1/2 60 — 6 6/8

(-15 3/8 80) (-16 1/2 100) (-4 3/4 120) 0 3/8 130 — 6 1/2 141 — 7 2/3 143 — 7 1/2 150

Beginning of Monthly cross section [illegible] April 7 1907

End of Road Cross sections May 2 1907 Final Cross Sections at

stations continued on page 55.

6+46 — 28 1/2

14 7/8 55 — 7 1/2 50 — 12 1/2 43 — 16 1/2 30 — 17 1/8 23 — 30 1/2 20 — 26 1/2 10 — 28.3 — 24 3/8 10 — 19 1/2 20 — 17 1/2 30 — 5 1/2 [illegible] — 11 1/2 50 — 9 1/2 60

P. (-3 3/8 60) (-7 3/8 70) (-11 1/2 80) (-2 1/2 90) (-13 1/2 100) (-11 1/2 110) (-4 3/8 120)

9 3/8 150 — 8 1/2 141 — 6 1/2 133 — 0 1/2 125

6+45 — 26 3/4

8 1/2 55 — 14 3/8 40 — 16 1/2 30 — 16 1/8 26 — 20 1/2 23 — 20 1/2 20 — 25 1/2 10 — 28 1/2 — 26 3/8 10 — 20 1/2 20 — 12 1/2 30 — 14 1/2 40 — 10 3/8 50

P. 1 7/8 68 (-0 1/2 60) (-6 1/2 70) (-7 3/8 80) (-5 1/2 90) (-3 1/2 100) (-7 1/2 110) (-2 1/4 120)

9 3/8 155 — 9 1/2 141 — 6 3/8 133 — 3 1/2 130

6+44 — 27 1/2

0 1/2 60 — 9 5/8 50 — 14 1/2 40 — 15 7/8 30 — 15 1/2 27 — 22 1/2 20 — 26 1/2 10 — 27.4 — 27 1/6 5 — 23 9/8 10 — 19 1/2 20 — 16 1/8 30 — 14 1/2 40 — 10 6/8 50

(-6 1/8 70) (-7 1/2 80) (-10 1/2 90) (-9 6/8 100) (-10 1/2 110) (-0 1/2 120) 3 1/2 125 — 6 1/4 130

9 5/8 130 — 10 1/2 138

1961

Cross section notes on Dry pond Borrow pit for Quality Estimate

	Elev	Grade	Left					℄	Right				
651	207	211 608	(-132/115) (-92/80) (-73/65) 7 1/2 / 50	8 5/8 / 40	13 5/8 / 30	20 3		21 1/2 / 10	14 5/8 / 30	11 7/8 / 40	6 5/8 / 50	
			→ (-12/135) 4 3/4 / 145	4 5/8 / 160								
650	227	211 619	(-103/100) (-112/90) (-84/65) 7 1/4 / 50	8 5/8 / 40	16 2/8 / 20	21 9		21 7/8 / 10	14 7/8 / 30	6 5/8 / 50		
			→ (-69/130) 4 3/4 / 135	4 7/8 / 150								
649	22 2	211 631	(-105/115) (-103/80) (-94/60) 7 7/8 / 50	10 5/8 / 40	15 5/8 / 20	21 4		21 3/8 / 10	11 5/8 / 40	7 7/8 / 50	6 5/8 / 60	
			→ (-53/130) 5 1/4 / 142	5 3/4 / 150								
+50												
648	216	211 643	(-167/90) (-67/65) 7 9/8 / 50	9 5/8 / 40	17 5/8 / 20	23 9		17 0/8 / 20	11 1/8 / 40	8 3/8 / 50	6 5/8 / 60	
			→ (-122/110) (-67/125) 8 1/2 / 145	5 3/4 / 150								

1962

Cross section notes on Dump and Borrow pit for March Estimate

Flor Grade Left & Right Adjustment

655	211 3	24 50	(-11 9/100)	(9 3/50)	(-15 3/65)	8 2/50	9 2/40	18 8/20	20 4/10	24 1	2 13 3/10	13 1/30	11 5/40	8 1/50	6 8/55
			→ (9 2/130)	6 0/135	6 8/137	6 7/150									
654	20 3	211 5 7/2	(-13 9/110)	(-3 4/90)	(-9 7/65)	6 5/50	10 5/30	14 3/20	14 2/10	20 3	20 5/10	17 9/30	8 3/50	3 3/55	
			→ (9 6/130)	5 5/136	5 3/145										
653	197	211 5 11	(-15 4/110)	(-11 9/90)	(-9 3/65)	7 5/50	8 7/40	15 1/20	19 7		18 8/10	13 6/30	10 3/50	7 3/58	
			→ (-5 7/130)	3 3/138	5 4/150										
652	185	21 5 9 6	(15 2/110)	(-13 0/90)	(-7 8/65)	7 2/50	9 8/40	15 8/20	19 2	19 1/10	15 1/30	11 3/40	8 2/58		
			→ (9 1/130)	3 9/145	3 3/160										

1963

	Eleve	Grande											
659	9 1/2	24 5/12	(-16 6/100)	(-15 8/80)	(-9 5/60)	8 2/50	13 5/30	21 5/10	23 7	32 4/10	15 9/30	8 7/50	
			(-15 2/110)	6 2/123	6 6/130								
658	28 1/2	24 5/24	(-13 6/100)	(-10 5/80)	(-9 8/65)	9 7/50	14 3/30	22 6/10	29 2	25 2/10	19 2/30	10 7/50	9 2/60
			(-9 2/120)	6 2/133	7 8/140	8 2/155							
657	26 2	24 5/36	(-7 5/80)	0 5/60	8 4/50	9 6/40	17 3/20	23 2/10	26 7	25 2/10	16 4/20	14 5/30	9 4/51
			(-10 3/100)	(-5 7/120)	6 2/128	8 2/135	8 5/150						
656	27 1/2	24 5/48	(-12 5/100)	(-12 2/80)	(-6 5/60)	5 6/50	15 3/30	21 2/10	26 5	18 4/20	13 2/40	10 3/50	9 2/60	7 3/65
			(-5 2/120)	6 2/135	7 4/136	7 1/150							

1964

38

1965

HI 192

1966

Cross section notes on Academic Avenue Addition Addition Page 40

Natural Ground

Natural Ground

1967

Cross-sections on Project [illegible]

674

$\frac{07}{73}$ $\frac{57}{65}$ $\frac{9E}{63}$ $\frac{125}{55}$ $\frac{15E}{47}$ $\frac{18E}{33}$ $\frac{14E}{21}$ $10\frac{5}{}$ $\frac{5E}{18}$

$(\frac{-12}{83})(\frac{-14}{93})(\frac{07}{103})(\frac{-05}{113})$ $\frac{5E}{122}$ $\frac{12}{126}$ $\frac{7E}{140}$

673

$(\frac{-32}{90})(\frac{-14}{75})$ $\frac{12}{65}$ $\frac{5E}{60}$ $\frac{11E}{56}$ $\frac{16E}{38}$ $\frac{13E}{17}$ $9\frac{E}{}$ $\frac{5E}{13}$ $\frac{10}{30}$ $\frac{0E}{40}$

$(\frac{-42}{100})(\frac{-02}{110})$ $\frac{5E}{120}$ $\frac{6E}{125}$ $\frac{7E}{140}$

672

$(\frac{-32}{75})\frac{3E}{70}$ $\frac{5E}{68}$ $\frac{8E}{58}$ $\frac{11E}{48}$ $\frac{11E}{36}$ $\frac{5E}{6}$ $4\frac{E}{}$ $\frac{2E}{20}$ $1\frac{1}{35}$

$(\frac{-42}{85})(\frac{-54}{95})(\frac{-54}{105})(\frac{-44}{115})(\frac{-22}{120})$ $\frac{5E}{124}$ $\frac{4E}{127}$

$\frac{8E}{140}$

671

$(\frac{-62}{75})$ $1\frac{2}{65}$ $\frac{3E}{55}$ $\frac{5E}{47}$ $\frac{7E}{39}$ $\frac{7E}{38}$ $\frac{5E}{32}$ $(-0\frac{E}{})$ $(\frac{-3E}{25})$

$(\frac{-72}{90})(\frac{-6-}{105})(\frac{-45}{115})(\frac{-45}{120})$ $\frac{5E}{129}$ $\frac{6E}{130}$ $\frac{6E}{140}$

670+40 Natural Ground

HI = 193

6961

679 Natural Ground

678 (-14/75) 82/70 59/65 92/76 122/89 135/125 52/2 47/ 42/10 32/20

→ (-15/85) (-18/95) (-12/105) 57/115 84/121 72/140

677 (-12/80) (2/95) 59/69 118/80 159/41 172/32 153/24 12 1/ 74/20 63/30

→ (-29/90) (-12/100) (-1/110) 57/123 87/132 84/140

676 22/75 57/70 123/61 151/46 218/29 316/27 142/14 113/ 62/29 37/ 27/

→ (-27/85) (-43/95) (-32/105) (-15/111) 57/122 83/127 72/140

675 (-14/75) 17/72 59/67 123/60 154/45 224/32 223/26 13 0 42/21 57/36

→ (-49/85) (-56/95) (-67/105) (-59/110) 04/112 52/123 75/125 76/143

HI = 94%

Cross sections showing Borings of the Subway

From 528 to 575 the dredger [illegible] one of the Subway [illegible]

effect											
526+50			59	12+	15	17	22	18	15	10	41	41
NJ 268			72	74	54	53	31	22		15	35	18
550			59	84	12+	14	17+	20	30+	12	92	56	58
			72	47	47	31	30	16	5		21	36	30
NJ 263													
512			59	12+	17	18	19	32	16	14	8	8
			68	73	03	45	34	97		12	34	24
NJ=25													

1970

Final Cross Sections on Levee West of Sta. "E" 618+80.

0+00 = 18 feet West of "E" 618+80.
This levee extends, from the edge of the Grade at Sta. "E" 618+80, West to the break.
Numerator indicates depth of earth above natural ground.
Denominator indicates distance from center line.

Copy of Notes by Drury Butler.
June 28 - 1907.
Copied 6-21-12 L.F.H.

0+00					0.0					
0+25	0.0 / 46.	0.8 / 44.	2.7 / 25.	4.9 / 15.	9.9 / 3.	10.1	9.9 / 6.	6.1 / 12.	2.9 / 21.	0.0 / 33.
0+50	0.0 / 47.	1.8 / 40.	3.8 / 23.	11.2 / 5.	12.0	11.6 / 5.	6.4 / 17.	4.0 / 27.	0.0 / 30.	
0+75	0.0 / 46.	1.1 / 39.	3.8 / 25.	11.0 / 8.	11.8	11.2 / 9.	5.8 / 20.	4.4 / 26.	0.0 / 30.	
1+00	0.0 / 47.	1.1 / 41.	2.3 / 35.	5.1 / 23.	8.2 / 5.	9.6	9.6 / 10.	5.5 / 31.	1.7 / 25.	0.0 / 27.
1+25	0.0 / 52.	2.7 / 40.	4.8 / 22.	5.9 / 19.	6.1 / 11.	9.2 / 10.	9.7	9.3 / 13.	6.3 / 21.	4.5 / 28.	0.0 / 30.
1+26					0.0					

Pages ~~44~~ To Used In
Final Estimate No. 13

Cross sections for May Estimate

May 31 1912

Left ℄ Right

653	20.7	40 -35 -42 -13 -10 -6 +6 +7	20	9	13	10	7
	24.58	140 130 120 110 90 60 50 50		7	26	10	8
430	20.1						
	24.59						
652	21.2	-8 -13 -13 -14 -10 -7 +5 +7	21	21	8	6
	24.60	130 115 100 90 75 65 55 50		7	50	55
		140				
428	21.4						
	24.60						
651	21.0	-4 -10 +3 -12 -8 +5 +7	21	22	7
	24.51	125 110 100 90 80 60 50 50		6	33
		-09 145					
		135 144					
453	22.7						
	24.61						
650	22.8	12 -10 -7 +6 +7 +10 +22	22	8	7
247	24.62	120 80 65 55 50 35 6			50
		+13 -7 +45					
150		120 132 142					
649	22.9	-11 -10 -9 -5 +1 +16 +22	22	23	8
	24.63	125 80 75 65 50 15 5		7	50
		+105 -115 +45					
		110 123 144					
647							
648+50	23.4	-13 -7 -4 +5 +10 +22	22	23	9
227	24.64	89 71 60 53 34 3		11	45
		-95 -35 +55					
		120 130 141					

1972

Cross sections for May Estimate

659

658

Nowark during 26th May

657

Nowark during May

656

Nowark during May

655

654

1973

1974

Normal Ground

727

627

646

23'

1975

Final cross sections on 52 stations E 620+50 South June 8 1917

Left ℄ Right

623+50

(-18.7/70) (-18/60) 5.2/50 12.8/37 15.2/23 17.2/21 24.6/7 28.7/ 25.2/8 14.7/22 11.8/36 8.3/50

(12.8/80) (-14.0/90) (-14.6/100) (-10.7/110) (-11.2/120) (-3.7/130) 6.2/143 6.4/150

P.

623+50

(-17.7/70) (-0.6/60) 8.2/50 12.7/36 14.2/86 30.3/9 25.2/9 24.3/43 9.6/43

(12.7/80) (-11.2/90) (-14.2/100) (-12.2/110) (-13.2/120) (-3.7/130) 8.9/141 6.2/150

621+50

(-12.2/90) (-11.7/80) (-9.6/70) 3.6/60 6.8/50 13.2/24 24.2/9 24.6/9 24.4/20 17.2/20 9.7/44

(-13.2/100) (-13.2/110) (-12.2/120) (-1.6/130) 6.3/146 3.2/150

P.

N.B.-With these notes, see also page 28. For previous stations of Embankment Final Cross Sections, see Final Cross Section Book No 1, page 65. For previous stations of Borrowpit Final Cross sections, see Final Cross Section Book No 2, page 12.

620+58

HI: 75.6

(-8.2/90) (-9.4/80) (-6.4/70) 0.4/60 5.6/55 8.2/50 24.2/10. 24.9/8 25.2/42 7.6/42

(-8.3/100) (-7.2/110) (3.2/120) 3.2/130 6.6/136 7.0/150

19761

1977

Final Cross Sections First Stations June 4th 1907

Left | Rights

630+50

P.

631+00

P.

630+50

P.

629+50

HI 24+

628+50

HJ 26L

19781

P.

P.

1979

1980

640+57

P.

639+53

638+53

P.

637+53

HI 260

Final cross sections of Dump and Barrow pit of Dredger # 6

6+45+50

(-11 2/85)(-8 2/75)(-4 2/65) 1 7/55 4 8/50 11 2/45 19 1/32 25 1/15 24 8/11 24 8/30 19 7/38 14 3/48 13 1/58 11 5/60 10 2/60

(-10 2/95)(-7 5/105)(-6 2/115) 1 6/125 4 8/132 9 7/140 9 2/150

P.

6+44+50

(-7 3/80)(-6 5/70)(-1 2/60) 10 8/53 11 2/50 19 1/35 24 8/16 25 7/9 25 3/9 19 5/18 14 2/42 10 1/51 4 8/60

3(-7 8/90)(8 2/100)(-7 5/110)(-1 8/120) 4 8/123 9 6/137 9 4/150

6+37+50

(-5 0/70)(-4 3/70)(-2 0/60) 7 8/50 17 1/30 23 8/22 24 3/9 26 7/8 26 0/8 18 2/23 13 8/38 1 1/41 10 0/50

1½ - 18

(-9 0/90)(-10 3/100)(-7 8/110) 2 8/120 4 8/125 9 2/137 9 6/150

June 25 1907

1 - 28

6+27+50

(-9 3/90)(10 2/80)(-7 2/70)(-3 5/60) 9 8/30 14 6/32 26 2/11 25 7/9 25 2/10 19 7/37 13 2/47

(-9 4/100)(-7 8/110)(-0 8/120) 9 5/130 9 7/150

P.

6+17+50

(-8 7/85)(-9 1/75)(-7 2/65) 1 7/55 10 2/45 10 8/41 15 8/31 23 7/15 25 2/12 24 6/12 21 8/19 14 1/37 11 3/43

(-9 5/95)(-10 2/105)(-8 2/115) 2 3/125 9 1/140 9 0/150

P1 26°

1981

Final cross sections of Dump and Borrow cut at Dredger = 5

650

(-11.5/80)(-9.2/70)(-1.0/60) 5.2/55 6.9/50 11.8/32 18.2/17 22.1/10 24.2/5 25.1 24.2/5 20.2/13 16.9/24 11.4/39 7.6/49 7.1/53

(-12.6/90)(-15.2/100)(-16.2/110)(-13.5/120)(-9.4/130) 4.2/140 4.2/150

753

(-11.8/80)(-9.6/70)(-08.2/60) 4.5/55 7.2/50 14.5/37 21.4/12 24.2/6 24.1 24.6/7 16.4/27 12.0/42 8.2/52 7.6/62

P.

(-12.0/90)(-15.7/100)(-16.5/110)(-13.4/120)(-9.4/130) 4.5/140 4.5/150

649

MI 27.2

(-13.0/80)(-8.1/70)(-4.5/60) 4.5/55 7.2/50 11.2/35 24.2/6 24.4/7 24.7/7 20.2/14 12.2/38 7.8/60 7.2/70

(-10.6/90)(-10.5/100)(-11.2/110)(-10.2/120)(-6.0/130) 4.8/142 5.2/143 5.2/160

750

(-11.2/80)(-7.2/70)(-1.7/60) 4.5/55 7.1/50 10.2/34 24.1/12 24.6/9 24.4/9 16.3/23 9.1/41 8.1/58 7/68

(-13.2/90)(-14.6/100)(-14.0/110)(-9.2/120)(-3.2/130) 4.5/141 5.4/142 5.2/160

644

P.

(-12.7/80)(-10.5/70) 1.4/60 4.5/55 8.1/50 11.7/34 24.6/14 24.6/9 24.2/9 16.9/22 8.5/50 4.2/60 4.2/70

(-15.2/90)(-15.2/100)(-14.5/110)(-8.2/120)(-2.2/130) 4.8/141 5.5/142 5.2/160

647+50

(-14.2/90)(-12.5/80)(-7.5/70) 5.2/60 4.2/55 8.1/50 16.2/38 24.1/15 24.2/9 24.8/9 16.9/23 13.8/55 7.7/54 6.2/65

(-14.2/100)(-12.1/110)(-10.4/120)(-4.2/130) 4.5/140 6.5/143 6.5/160

647

(-15.7/90)(-14.5/80)(-10.2/70)(-1.2/60) 7.1/50 16.9/36 24.6/13 25.2/7 21.0/7 18.2/21 14.2/40 9.8/50 6.2/60 7.0/70

(-16.1/100)(-15.6/110)(-8.3/120) 6.5/130 4.8/137 7.2/141 7.2/160

646+50

(-13.2/80)(-6.2/70)(-02.1/60) 2.9/55 5.2/50 14.9/39 18.6/25 24.7/15 24.7/14 24.3/14 19.8/22 17.1/33 12.2/44 11.0/50 9.2/61 8.5/70

MI = 29.5

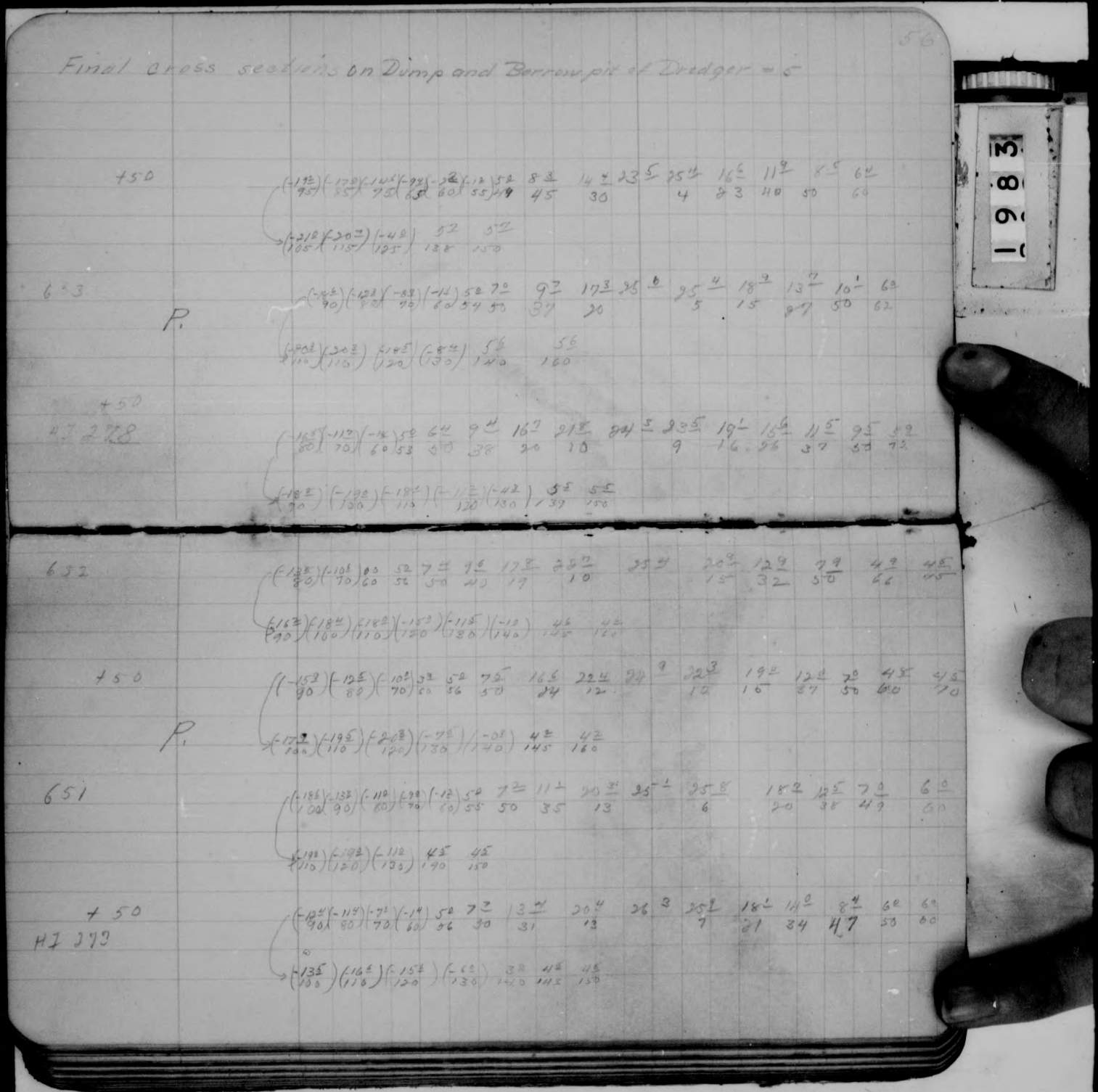
WL 45

(-14.9/90)(-14.2/100)(-15.6/110)(-5.2/120) 1.8/130 4.2/135 8.5/142 8.4/150

Final Cross Sections of even stations continued from page 34.

1982

Final cross sections on Dump and Borrow pit of Dredger = 5



Final cross sections

657

+50

P.

656

+50

655

P.

+50

654

HI 9 95

19841

Final cross sections

June 27

660

450

9.0 13.5 16.0 23.8 23.2 13.5 9.1 7.6
30 30 24 8 33 51 68

660

9.3 9.7 13.3 15.7 22.4 24.3 24.3 17.4 13.1 12.3 8.2 7.2
30 45 35 25 10 8 20 33 12 35 63

450

12.2 15.4 14.6 24.7 26.2 24.9 19.2 14.3 10.6 10.4
30 34 27 13 8 22 36 48 50

Borrowpit Final Cross Sections continued in Final Cross Section Book No 4, page 23. Embankment Final Cross Sections continued in Final Cross Section Book No 4, page 26.

158

(-.05)(-.79)(-.22)(-.24)(-.23) 10.2 10.2 18.5 24.7 25.4 26.1 13.1 9.2
102 90 80 70 60 53 30 24 14 9 59 65

(-6.2/110)(-3.5/120)(-2.2/130) 8.0 8.4
141 150

P.

450

27.3 (-.82)(-.92)(-.42)(-.04).52 9.2 10.0 16.9 24.7 24.7 25.5 16.3 13.7 9.2 8.4
96 80 70 60 55 50 41 21 12 8 24 44 60 62

(-9.0/100)(-8.5/110)(-7.5/120) 6.3 8.2
142 150

1985

Original Cross Section notes Sta 667+88.5 to 671+

June 18 1907

Sta	Grade	Left	C	Right
690		24.7 24.3 20.7 24.5 25.1 25.5 26.2 25.1 25.6 34.5 34.2 43.6 40 30 20 9 9 20 30 50 60.3		
670	24.1	22 15 10 5.1 9.0 37.3 25.2 25.4 27.5 33.4 36.0 36.8 34.2 29.6 50.0 40 20 9 9 30 40 53.4		
650		24.5 24.5 31.6 36.4 36.2 35 33.3 31.0 38.5 20.9 45.3 40 30 20 9 9 20 30 40.3		
669		34.3 36.2 37.8 35.3 31.3 25.3 25.2 1.5.7 60.3 50 40 20 19 24 9 32.6		
89		36.3 37.2 37.2 35.6 31.2 26.5 30.1 14.6 53.5 50 40 20 19 9 30.3		
667		36.7 37.8 33.2 30.2 25.4 18.8 16.4 11.2 63.3 50 30 20 9 9 25.5		
650		36.4 36.2 36.1 29.5 19.1 16 9.4 10.5 Top of Grade 10.7 63.2 50 40 25 9 9 23 24.8		
668	24.436	33.6 18.3 12.2 11.2 9.8 11.2 10.2 Top of Grade 58.4 33 9 9 14.2 30.3		
667+88.5	24.44	17.8 12.3 11.4 11.2 9 6 10.3 12.3 13.2 14.4 35.3 18 12.2 9 9 20.3 30.3		

H.I. 17.64
-R. -6.5

1986

Monthly progress for June

June 29 47

275 Ends of Channels Tops

673 78/140 62/135 69/130 (-43/100) (-32/90) (-64/70) 48/61 80/57 85/48 122/20 170/12 102 112/15 80/25 03/40 (-02/80)

672 80/148 80/127 57/124 (-52/115) (-54/105) (-51/85) 42/69 64/46 78/40 135/24 76 42/10 23/35 02/40 03/80

HJ.203

671 68/145 60/130 (-69/165) (-76/135) (-82/25) 162/65 73/39 43/20 12 -06/20 -93/40

670 (-82/60) 12/40 08/20 (-62/) (-84/20) (-75/40) (-26/60)

669 (-40/50) (-72/60) (-71/40) (-74/20) (-48/) 52/19 85/325

667+75 No work to 668+50

+50 15-2

667 14-6 48 88 154 181 166 146 78/42

+50 16 7 62 30 33 23 8

666 193 48 45/56 7 5/30 145/33 193 197/7 11 1/3 42/52

+50 16 4

665 17 4 45/62 67/50 142/27 17 5 192/11 103/22 82/25 63/20

+50 16 9

HJ237

664 17 5 69/60 120/20 175 108/29 64/46

+50 19 3

663 21 5 54/45 162/20 192/17 215 210/9 117/29 74/42 61/48

+50 22 0

662 20 2 78/50 152/23 202/17 22 2 82/9 122/31 87/22 65/60

+50 21 4

273 21 7 72/50 112/38 161/32 217 224/12 132/28 72/30

661

+50 22 0

660 25 5 83/50 132/31 203/13 25 5 234/13 158/28 117/42 82/50

Plan of cross-section between Folsom and Johnston's Ranch

To Sacramento

E Line

Orange

Hubon Levee

30'

To Walnut Grove

Johnston's Ranch

1988

Copy of Cross-Section across Borrowpit of Dredger #4 on Site of Cross Levee between Pringle property & Johnston Estate.

Notes by Drury Butler
July 1, 1907.

659+37

5E 3C 4E 2E 7E 2E 3E 4E 4E 6E 5E 8E
146 140 130 120 110 100 90 80 70 60 55 50

3E 4E 4E 1E 10 6E 9E 7E
116 110 100 90 80 70 60 57

659+12

5C 12 10 15 14 (0E) 06E 9C
118 110 100 90 80 70 60 57

787

7C (1E) 1E (+1) (2E) (5E) (2) 9E
120 110 90 80 70 60 58

762

8E (5E) (5E) (3) (6E) (5E) 2C 8E
120 110 90 80 70 60 57

658+50

Soundings across borrowpit at cross Levee Rt & to & line of RR Grade June 21 1907

Left

E 658+62

Bank
7E 5E 6E 8E 6E 7E 10E 0C 9E
120 117 110 100 90 80 70 60 56

E 658+87 ctr of cross Levee

Bank
8C 5C 3E 7E 7E 7E 6E 6E 1E 9E
128 126 120 110 100 90 80 70 60 56

E 659+12

Bank
6E 5E 12 4E 5E 6E 7C 4E 0E 7E
126 125 120 110 100 90 80 70 60 57

659+37

6E 5C 17 4E 3E 2E 3E 4E 4E 0C 5E 8E
150 146 140 130 120 110 100 90 80 70 60 55 50

Cross Sections Showing Estimate of Coverage for Sampling

660735

660735

660735

1990

Cross section notes on Farm crossing on Right of centerline at E 627+60±

June 6th 1957

	Left		C	Right	
1796 Toe of slope	9.4		9.4	9.4	
	7			9	
1750	7.6	8.8	13.2	13.2	6.6
	32	17		9	25
1700	7.2	7.7	17.4	17.6	17.2	6.3	6.5
	45	28	10		9	28	45
0+50	8.5	9.2	11.2	21.2	21.4	21.2	8.4	7.0
	75	50	30	8		10	82	62
0+30			11.8	15.2	20.2	22.2		22.4	15.5	8.6
HI = 21.5			51	38	11			9	30	16
0+11 Edge of Grade			24.2		24.8			24.2		
			13					13		
0+00 Center of Grade					24.8					
25.8										

Abandoned
see page 69 Original Cross Sections "E" A50+00 to E" 637+50
see also page 65 of this book

1991

Cross section notes for fill on End of Trestle bridge at E 609+60± on Left of L line

June 6th 1917

Note Used in Final Estimate

1962

Pages 65 ~~To~~ Used In
Final Estimate Item No 117

3+30 6[2] Toe of slope 0.2

3+24 43 -4[2]/14 -3[8]/12 3.2 -1[9]/12 -1[5]/143

1+52 Point of Curve 147 -8[4]/243 -12/12 -7.2 -6[4]/12 -7[8]/14 -7[5]/243

-2.5

AT = 14.2

1+40 Natural Ground Toe of Slope

7 MM
5-25-17

1993

Cross sections on farm crossing of ℄ 637+89.2 on
Right of center-Line. June 6 1917
Left ℄ Right

1+35 Top of Slope 14 8.2 7.1 10.5 10.1
29 7 11

"E" 637+50

1+00 5.7 8.5 8.7 15.6 15.8 15.5 11.1 10.5
29 21 8 20

0+50 21.7 8.3 9.1 9.4 11.2 21.5 21.2 14.2 13.4
49 39 26 17 17 19 29

Abandoned
see page 10 Original Cross Sections E. 460+00
see also page 68, this book

10.2 10.2 21.8 21.5 15.2 14.2
36 7 7 19 29

0+45 12.0

0+15 Edge of RR Grade 24.2 24.5 24.2
9 9

26.5
0+00 Center Line
24.9 25.0

Cross section of Fill at end of Trestle Bridge E 6 37+ 99.5 on 68
Left of line Left ℄ Right Tuesday

Pages 119 ~~To~~ Used In
Final Estimate Item No 8

2+00	Toe of slope				9.8 (9)	9.5		9.4 (10)		
1+50			10.1 (31)	11.2 (19)	11.4 (9)	14.2	14.1 (7)	9.1 (19)	9.2 (24)	
1+37	End of Bridge	9.9 (38)	10.5 (26)	12.2 (16)	15.2 (8)	15.2	15.2 (7)	9.2 (19)	9.1 (25)	
1+36		9.9 (34)	10.2 (25)	12.4 (17)	12.1		12.1 (12)	9.2 (19)	9.1 (24)	
1+31		9.2 (34)	10.5 (25)	13.1 (16)	13.2 (8)	13.5	13.1 (9)	9.1 (17)		
1+25	Natural Ground			10.4	9.5			9.2		

F.M.Y 5-25-12

MI: 176

1995

Cross section notes on farm crossing at E 6+42.1+31.1 Tunnel #7
612 Right of Line
Left ℄ Right
Notes used in Final Estimate.

Pages 69 To 70 Used In
Final Estimate Item No 121

1+75	Toe of Slope			9 7/10	9 7		9 7/10	
1+50			9 5/30	9 8/15	12 5/8	12 5	11 7/9	9 5/19	9 5/30
1+00			9 7/30	9 7/23	17 8/9	17 8	17 5/12	9 5/28	9 5/39
0+75			9 2/43	9 8/29	20 3/12	20 8	20 3/12	10 2/28	10 2/41
0+50		10 1/46	11 7/30	22 4/10	22 4		22 0/13	13 1/30	12 2/43
0+45		10 8/47	12 1/30	22 6/10	22 5		22 4/14	13 2/29	13 7/44
0+10	Edge of RR Grade			14 8/12	14 8		15 1/17		
0+00					25 3				

FMY
5-28-12

HJ 960

Cross section notes on grade at end of trestle bridge on
Left of Line at E 6 12 + 31
Left ℄ Right

7 MY
5-28-12

		Left					℄				Right
1754	End of Fill				9 5 / 9	9 3			9 2 / 9		
1700				9 8 / 20	9 8 / 13	11 2 / 7	11 6	11 5 / 6	9 4 / 15	9 2 / 26	
1753	End of Bridge			9 0 / 38	9 3 / 27	14 4 / 10	14 5	14 5 / 10	9 8 / 22	9 2 / 34	
1752			9 1 / 35	9 4 / 27	12 3 / 13	11 3		11 3 / 13	10 2 / 22	9 9 / 31	
1737		9 1 / 36	9 3 / 29	12 6 / 18		13 5	14 8 / 14	9 7 / 22	9 7 / 28		
1735	Natural Ground			9 0 / 25		9 3			9 5 / 25		

HI = 16.8

BM. 7.570 18.017
T.P. 11.310 24.682
BM

0.645
4.706
4.143

24.682

14.447
17.372
23.976
24.28

1998

Table IV.—Minutes in Decimals of a Degree.

1′	.0167	11′	.1833	21′	.3500	31′	.5167	41′	.6833	51′	.8500
2	.0333	12	.2000	22	.3667	32	.5333	42	.7000	52	.8667
3	.0500	13	.2167	23	.3833	33	.5500	43	.7167	53	.8833
4	.0667	14	.2333	24	.4000	34	.5667	44	.7333	54	.9000
5	.0833	15	.2500	25	.4167	35	.5833	45	.7500	55	.9167
6	.1000	16	.2667	26	.4333	36	.6000	46	.7667	56	.9333
7	.1167	17	.2833	27	.4500	37	.6167	47	.7833	57	.9500
8	.1333	18	.3000	28	.4667	38	.6333	48	.8000	58	.9667
9	.1500	19	.3167	29	.4833	39	.6500	49	.8167	59	.9833
10	.1667	20	.3333	30	.5000	40	.6667	50	.8333	60	1.0000

Table V.—Inches in Decimals of a Foot.

1-16 .0052	3-32 .0078	1/8 .0104	3-16 .0156	1/4 .0208	5-16 .0260	3/8 .0313	1/2 .0417	5/8 .0521	3/4 .0625	7/8 .0729

1 .0833	2 .1667	3 .2500	4 .3333	5 .4167	6 .5000	7 .5833	8 .6667	9 .7500	10 .8333	11 .9167

Table VI.—Radii, Ordinates and Deflections.

Deg.	Radius	Mid Ord	Tan Def.	Chd. Def.	Def for 1 Foot	Deg.	Radius	Mid Ord	Tan Def.	Chd Def.	Def. for 1 Foot
0° 10′	34377.	.036	.145	.291	0.05′	7°	819.0	1.528	6.105	12.21	2.10′
20	17189.	.073	.291	.582	0.10	20′	781.8	1.600	6.395	12.79	2 20
30	11459.	.109	.436	.873	0.15	30	764.5	1.637	6.540	13.08	2.25
40	8594.4	.145	.582	1.164	0.20	40	747.9	1.673	6.685	13.37	2.30
50	6875.5	.182	.727	1.454	0.25	8	716.8	1 746	6.976	13.95	2.40
1	5729.6	.218	.873	1.745	0.30	20	688.2	1.819	7.266	14.53	2.50
10	4911.2	.255	1.018	2.036	0.35	30	674 7	1 855	7.411	14.82	2.55
20	4297 3	.291	1.164	2.327	0.40	40	661.7	1.892	7.556	15.11	2.60
30	3819.8	.327	1.309	2.618	0.45	9	637.3	1.965	7.846	15.69	2.70
40	3437.9	.364	1.454	2.909	0.50	20	614.6	2 037	8.136	16 27	2.80
50	3125 4	.400	1.600	3.200	0.55	30	603.8	2.074	8.281	16.56	2.85
2	2864 9	.436	1.745	3 490	0.60	40	593.4	2.110	8.426	16 85	2.90
10	2644.6	.473	1.891	3.781	0.65	10	573.7	2 183	8.716	17 43	3.00
20	2455.7	.509	2.036	4.072	0.70	30	546.4	2.292	9.150	18 30	3.15
30	2292.0	.545	2.181	4.363	0.75	11	521.7	2 402	9.585	19.16	3.30
40	2148.8	.582	2.327	4.654	0.80	30	499.1	2 511	10.02	20.04	3.45
50	2022.4	.618	2.472	4.945	0.85	12	478.3	2.620	10.45	20.91	3.60
3	1910.1	.655	2.618	5.235	0 90	30	459 3	2.730	10.89	21 77	3.75
10	1809.6	.691	2.763	5.526	0.95	13	441.7	2 839	11.32	22 64	3.90
20	1719.1	.727	2.908	5.817	1.00	30	425.4	2.949	11.75	23.51	4.05
30	1637 3	.764	3.054	6.108	1.05	14	410 3	3.058	12.18	24 37	4 20
40	1562.9	.800	3.199	6.398	1.10	30	396 2	3.168	12.62	25.24	4.35
50	1495.0	.836	3.345	6.689	1.15	15	383.1	3.277	13.05	26.11	4 50
4	1432.7	.873	3.490	6.980	1.20	30	370 8	3.387	13.49	26.97	4 65
10	1375.4	.909	3 635	7.271	1.25	16	359 3	3.496	13.92	27 84	4 80
20	1322 5	.945	3.718	7.561	1.30	30	348.5	3.606	14 35	28 70	4 95
30	1273.6	.982	3.926	7.852	1.35	17	338 3	3 716	14.78	29.56	5 10
40	1228.1	1.018	4.071	8.143	1.40	18	319 6	3.935	15 64	31.29	5.40
50	1185.8	1.055	4 217	8.433	1.45	19	302 9	4.155	16 51	33.01	5 70
5	1146.3	1 091	4 362	8.724	1 50	20	287 9	4.374	17.37	34.73	6 00
10	1109.3	1.127	4.507	9.014	1.55	21	274.4	4.594	18.22	36 44	6 30
20	1074.7	1.164	4.653	9.305	1.60	22	262 0	4 814	19 08	38.16	6.60
30	1042.1	1.200	4.798	9.596	1 65	23	250.8	5 035	19.94	39 87	6.90
40	1011.5	1.237	4.943	9.886	1 70	24	240 5	5.255	20 79	41.58	7.20
50	982.6	1.273	5.088	10.18	1.75	25	231 0	5.476	21 64	43.28	7.50
6	955.4	1.309	5.234	10.47	1.80	26	222.3	5.697	22 50	44.99	7.80
10	929.6	1.346	5.379	10.76	1.85	27	214.2	5,918	23.35	46 69	8 10
20	905.1	1.382	5.524	11 05	1 90	28	206 7	6.139	24 19	48.38	8 40
30	881.9	1.418	5.669	11.34	1 95	29	199 7	6.360	25.04	50.07	8.70
40	859.9	1.455	5.814	11.63	2.00	30	193.2	6.583	25.88	51.76	9.00

TABLE VII.—TANGENTS AND EXTERNALS TO A 1° CURVE.

Angle	Tangent	External	Angle	Tangent	External	Angle	Tangent	External
1°	50.00	.22	11°	551.70	26.50	21°	1061.9	97.57
10′	58.34	.30	10′	560.11	27 31	10′	1070.6	99.16
20	66.67	.39	20	568 53	28.14	20	1079 2	100.75
30	75.01	.49	30	576.95	28.97	30	1087 8	102.35
40	83.34	.61	49	585.36	29.82	40	1096.4	103.97
50	91.68	.73	50	593.79	30.68	50	1105.1	105.60
2	100.01	.87	12	602.21	31.56	22	1113 7	107 24
10	108.35	1.02	10	610 64	32.45	10	1122.4	108.90
20	116.68	1.19	20	619.07	33.35	20	1131.0	110.57
30	125.02	1.36	30	627 50	34.26	30	1139 7	112.25
40	133.36	1.55	40	635.93	35.18	40	1148.4	113.95
50	141.70	1.75	50	644.37	36.12	50	1157.0	115.66
3	150.04	1.96	13	652.81	37.07	23	1165.7	117.38
10	158.38	2.19	10	661.25	38.03	10	1174.4	119.12
20	166.72	2.43	20	669.70	39.01	20	1183.1	120.87
30	175.06	2.67	30	678.15	39.99	30	1191.8	122.63
40	183.40	2.93	40	686 60	40.99	40	1200 5	124.41
50	191.74	3.21	50	695.06	42.00	50	1209.2	126.20
4	200.08	3.49	14	703.51	43.03	24	1217.9	128.00
10	208.43	3.75	10	711.97	44.07	10	1226.6	129.82
20	216.77	4.10	20	720.44	45.12	20	1235.3	131 65
30	225.12	4.42	30	728.90	46.18	30	1244.0	133.50
40	233.47	4.76	40	737.37	47.25	40	1252 8	135.35
50	241.81	5.10	50	745 85	48.34	50	1261.5	137.23
5	250.16	5.46	15	754.32	49.44	25	1270 2	139.11
10	258.51	5.83	10	762.80	50.55	10	1279.0	141.01
20	266.86	6.21	20	771.29	51.68	20	1287.7	142.93
30	275.21	6.61	30	779.77	52.89	30	1296.5	144.85
40	283.57	7.01	40	788.26	53.97	40	1305 3	146.79
50	291.92	7.43	50	796.75	55.13	50	1314.0	148.75
6	300.28	7.86	16	805 25	56.31	26	1322 8	150.71
10	308.64	8.31	10	813.75	57.50	10	1331 6	152.69
20	316.99	8 76	20	822.25	58.70	20	1340.4	154 69
30	325.35	9.23	30	830.76	59.91	30	1349.2	156 70
40	333.71	9.71	40	839.27	61.14	40	1358 0	158.72
50	342.08	10.20	50	847.78	62.38	50	1366.8	160.76
7	350.44	10.71	17	856.30	63.63	27	1375.6	162.81
10	358.81	11.22	10	864.82	64.90	10	1384.4	164.86
20	367.17	11.75	20	873.35	66.18	20	1393.2	166.95
30	375.54	12.29	30	881.88	67.47	30	1402 0	169.04
40	383.91	12.85	40	890.41	68.77	40	1410.9	171.15
50	392.28	13.41	50	898.95	70.09	50	1419.7	173.27
8	400.66	13.99	18	907.49	71.42	28	1428 6	175.41
10	409.03	14.58	10	916.03	72.76	10	1437.4	177 55
20	417.41	15.18	20	924.58	74.12	20	1446 3	179.72
30	425.79	15.80	30	933 13	75.49	30	1455.1	181.89
40	434.17	16.43	40	941.69	76.86	40	1464.0	184 08
50	442.55	17.07	50	950.25	78.26	50	1472.9	186 29
9	450.93	17.72	19	958 81	79.67	29	1481.8	188.51
10	459.32	18.38	10	967.38	81.09	10	1490 7	190.74
20	467.71	19.06	20	975 96	82.53	20	1499 6	192 99
30	476.10	19.75	30	984.53	83.97	30	1508 5	195.25
40	484.49	20.45	40	993.12	85.43	40	1517.4	197.53
50	492.88	21.16	50	1001.7	86.90	50	1526 3	199.82
10	501.28	21.89	20	1010.3	88.39	30	1535.3	202.12
10	509.68	22.62	10	1018.9	89.89	10	1544.2	204.44
20	518.08	23.38	20	1027.5	91.40	20	1553 1	206.77
30	526.48	24.14	30	1036 1	92.92	30	1562 1	209.12
40	534.89	24.91	40	1044.7	94.46	40	1571 0	211 48
50	543.29	25 70	50	1053.3	96.01	50	1580.0	213 86

Angle	Tangent	External	Angle	Tangent	External	Angle	Tangent	External
31°	1589.0	216.3	41°	2142.2	387.4	51°	2732 9	618.4
10′	1598.0	218.7	10′	2151.7	390.7	10′	2743.1	622.8
20	1606.9	221.1	20	2161.2	394.1	20	2753.4	627.2
30	1615.9	223.5	30	2170.8	397.4	30	2763.7	631.7
40	1624.9	226 0	40	2180.3	400.8	40	2773.9	636.2
50	1633.9	228.4	50	2189.9	404.2	50	2784.2	640.7
32	1643.0	230.9	42	2199.4	407.6	52	2794 5	645.2
10	1652.0	233.4	10	2209.0	411.1	10	2804.9	649.7
20	1661.0	235.9	20	2218.6	414.5	20	2815.2	654 2
30	1670.0	238.4	30	2228.1	418.0	30	2825.6	658.8
40	1679.1	241.0	40	2237.7	421.4	40	2835.9	663.4
50	1688.1	243.5	50	2247.3	425.0	50	2846.3	668 0
33	1697.2	246.1	43	2257.0	428.5	53	2856.7	672.7
10	1706.3	248.7	10	2266.6	432.0	10	2867.1	677.3
20	1715.3	251.3	20	2276.2	435.6	20	2877.5	682.0
30	1724.4	253.9	30	2285.9	439.2	30	2888.0	686.7
40	1733.5	256.5	40	2295.6	442.8	40	2898.4	691.4
50	1742.6	259.1	50	2305.2	446.4	50	2908.9	696.1
34	1751.7	261.8	44	2314.9	450.0	54	2919.4	700.9
10	1760.8	264.5	10	2324.6	453.6	10	2929.9	705.7
20	1770.0	267.2	20	2334.3	457.3	20	2940.4	710.5
30	1779.1	269.9	30	2344.1	461.0	30	2951.0	715.3
40	1788.2	272.6	40	2353.8	464.6	40	2961.5	720.1
50	1797.4	275.3	50	2363.5	468.4	50	2972.1	725.0
35	1806.6	278.1	45	2373.3	472.1	55	2982.7	729 9
10	1815.7	280.8	10	2383.1	475.8	10	2993.3	734.8
20	1824.9	283.6	20	2392.8	479.6	20	3003.9	739.7
30	1834.1	286.4	30	2402.6	483.8	30	3014 5	744.6
40	1843.3	289.2	40	2412.4	487.2	40	3025.2	749.6
50	1852.5	292.0	50	2422.3	491.0	50	3035.8	754.6
36	1861.7	294.9	46	2432.1	494.8	56	3046.5	759.6
10	1870.9	297.7	10	2441.9	498.7	10	3057.2	764.6
20	1880.1	300.6	20	2451.8	502.5	20	3067.9	769.7
30	1889.4	303.5	30	2461.7	506.4	30	3078 7	774.7
40	1898.6	306.4	40	2471.5	510.3	40	3089.4	779.8
50	1907.9	309.3	50	2481.4	514.3	50	3100.2	784.9
37	1917.1	312.2	47	2491.3	518.2	57	3110.9	790.1
10	1926.4	315.2	10	2501.2	522.2	10	3121.7	795.2
20	1935.7	318.1	20	2511.2	526.1	20	3132.6	800.4
30	1945.0	321.1	30	2521.1	530.1	30	3143.4	805.6
40	1954 3	324.1	40	2531.1	534.2	40	3154.2	810.9
50	1963.6	327.1	50	2541.0	538.2	50	3165.1	816.1
38	1972.9	330.2	48	2551,0	542.2	58	3176.0	821.4
10	1982.2	333.2	10	2561.0	546.3	10	3186.9	826.7
20	1991.5	336.3	20	2571.0	550.4	20	3197.8	832.0
30	2000.9	339.3	30	2581.0	554.5	30	3208.8	837.3
40	2010.2	342.4	40	2591.0	558.6	40	3219.7	842.7
50	2019.6	345.5	50	2601.1	562.8	50	3230.7	848.1
39	2029.0	348.6	49	2611.2	566.9	59	3241.7	853.5
10	2038.4	351.8	10	2621.2	571.1	10	3252.7	858.9
20	2047.8	354.9	20	2631.3	575.3	20	3263.7	864.3
30	2057.2	358.1	30	2641.4	579.5	30	3274.8	869.8
40	2066.6	361.3	40	2651.5	583.8	40	3285.8	875.3
50	2076.0	364.5	50	2661.6	588.0	50	3296.9	880.8
40	2085 4	367.7	50	2671.8	592.3	60	3308.0	886.4
10	2094.9	371.0	10	2681.9	596.6	10	3319.1	892.0
20	2104.3	374.2	20	2692.1	600.9	20	3330.3	897.5
30	2113.8	377.5	30	2702.3	605.3	30	3341.4	903.2
40	2123.3	380.8	40	2712.5	609.6	40	3352.6	908.8
50	2132.7	384.1	50	2722.7	614.0	50	3363.8	914.5

2000